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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional)	
		1032.005	
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		10/665,169	September 18, 2003
		First Named Inventor	
		Alan Kay SNELL	
		Art Unit	Examiner
		3761	Keshia L. GIBSON
Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.			
This request is being filed with a notice of appeal.			
The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.			
I am the		<u>/Chad D. Tillman/</u>	
<input type="checkbox"/> applicant/inventor.		Signature	
<input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)		<u>Chad D. Tillman</u>	
		Typed or printed name	
<input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>38,634</u>		<u>704 - 248 - 6292</u>	
		Telephone number	
<input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____		<u>October 25, 2005</u>	
		Date	
NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.			
<input type="checkbox"/> *Total of _____ forms are submitted.			

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/665,169 Confirmation No. 6319
Inventor : Alan Kay SNELL
Title : "Vacuum-Packed Diaper"
Filed : September 18, 2003
TC/AU : 3761
Examiner : Keshia Gibson
Docket No. : 1032.005
Customer No. : 36790

October 25, 2005

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

This request is filed concurrently with a notice of appeal. Applicant requests that a panel of examiners formally review the basis of the rejections in the above-identified application prior to the filing of an appeal brief. The rejections for which Applicant requests review are found in the Office Action of September 19, 2005 ("Final Office Action") and include: (1) the rejection of independent claims 42, 50, 73, and 77 under 35 U.S.C. §102(b) as being clearly anticipated by Narawa JP 10-95481 ("Narawa"); and (2) the rejection of independent claims 44, 47, 51, 67, 70, 74, and 78 under 35 U.S.C. §103 as being unpatentable over Narawa. Applicant believes that these rejections are improper and without basis because Narawa clearly fails to disclose a vacuum-packed diaper as found in the Final Office Action. This deficiency is fatal to all stated rejections and, therefore, no *prima facie* rejections have been established.

I. A Vacuum-Sealed Diaper is Recited by Each Independent Claim

In the above-identified application, a vacuum-sealed diaper is collectively defined by the following claim recitations: "a packaged diaper comprising" "a sealed substantially air impermeable encasement completely enclosing an interior space with at least one airtight seal," and "a compressed absorbent diaper disposed within said interior space of said sealed substantially air impermeable encasement," "wherein said interior space has at least a partial vacuum, whereby a pressure differential acts upon said encasement and said diaper to maintain said diaper in said compressed state, said encasement having been sealed after creation of at least a partial vacuum

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within said interior space of said encasement."¹ Such a vacuum-sealed diaper is explicitly recited in each of claims 42, 44, 47, 50, 67, 70, 73, 77, and 78.² A vacuum-packed diaper is explicitly recited in each of claims 51 and 74 and implicitly includes a vacuum-sealed diaper.³

II. *Narawa* Clearly Fails to Disclose the Recited Vacuum-Sealed Diaper

According to the disclosure of *Narawa*,⁴ the invention comprises the fabrication of a bag about a compressed diaper such that the bag maintains the compressed state of the diaper.⁵ The bag is fabricated about the diaper following compression of the diaper with a press roll or press conveyor belt.⁶ The bag itself maintains the diaper in the compressed state as a result of the restraining force of the bag and not as a result of any pressure differential acting across the bag.⁷ *Narawa* further discloses that air is expelled from the wrapping material of the bag during compression with the press roller or conveyor belt prior to sealing of the wrapping material to form the bag.⁸ By sealing the wrapping material following the release of this air, the resulting package avoids "pillowing."⁹

¹ The act of sealing of the diaper in the encasement within a partial vacuum at the time of sealing is referred to as vacuum-sealing of the diaper. The pressure differential that acts upon the bag and compresses the diaper results when the vacuum-sealed diaper is exposed to atmospheric pressure.

² In claims 42, 44, 47, 50, and 67, elements (a), (b) and (g) collectively define the vacuum-sealed diaper; in claim 70, elements (a), (b) and (h) collectively define the vacuum-sealed diaper; in claim 73, elements (a), (b) and (f) collectively define the vacuum-sealed diaper; in claim 77, elements (a), (b) and (e) collectively define the vacuum-sealed diaper; and in claim 78, elements (a), (b) and (d) collectively define the vacuum-sealed diaper.

³ The act of vacuum-sealing the diaper, taken in conjunction with the act of placing the diaper within the encasement, is referred to as vacuum-packing of the diaper. A vacuum-packed diaper necessarily includes a vacuum-sealed diaper. Claims 51 and 74 each recites "a vacuum-packed diaper."

⁴ Applicant submitted on June 28, 2005, a "Declaration Regarding Translation" including a complete, non-computer translation of *Narawa*. This is found, e.g., in PAIR having a "Mail Room Date" of "06-29-2005," a title of "Affidavits (Rule 131 or 132) or Exhibit(s) Received as part of the affidavit," and a 21 "Page Count." Remarks regarding and citations to the disclosure of *Narawa* are made with reference to this translation, which was afforded substantial weight in the Final Office Action.

⁵ See, e.g., *Narawa*, PATENT DETAILS ("The packaging bag is fabricated so that it maintains its shape and compresses the diaper to keep the thickness of the diaper."); EXTENT OF CLAIMED PATENT ("The packaging bag is fabricated to maintain its shape so that it compresses the diaper to keep the thickness of the diaper, and this is the advantage of the packaging structure of the disposable diaper."); and ¶ 0010 ("The packaging bag is fabricated so that it maintains its shape and compresses the diaper to keep the thickness of the diaper").

⁶ *Narawa*, ¶ 0025 ("Release the air inside of wrapping material 3 and disposable diaper 2 with pressure using press roll or press conveyor belt in the direction of the arrow on Diagram 4.").

⁷ *Narawa*, ¶ 0015 ("The aforementioned wrapping maintains its shape and compresses the diaper to keep the thickness of the diaper. Here the phrase, 'maintains its shape and compresses the diaper to keep the thickness of the diaper,' means that there is no additional pressure."); see also ¶ 0022 ("Furthermore, when disposable diaper 2 under individual package structure 1 with no pressure stays inside package 30, the thickness does not recover to the original size.").

⁸ *Narawa*, ¶ 0025.

⁹ Pillowing results from a cushion of air within the package as found, for example, in potato chip bags.

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In a variation of the invention, *Narawa* further discloses that air may be suctioned after formation of the bag about the compressed diaper and prior to final sealing.¹⁰ This disclosure appears as an afterthought and, when viewed in context of the entire disclosure of *Narawa*, it is clear that the suctioning of the air from the bag is meant as an alternative to the expelling of the air from the packaging material during fabrication of the bag. This suctioning is not disclosed to be an alternative to compressing the diaper with a press roll or press conveyor belt, and certainly is not disclosed to be vacuum-packing.

Importantly, nowhere does *Narawa* disclose the creation of "at least a partial vacuum" within an airtight interior space of the bag in combination with the sealing of the bag such that "a pressure differential" consequently acts upon the encasement and the diaper to maintain the diaper in a compressed state.

Despite this shortcoming, the Final Office Action nevertheless finds the disclosure that the air may be suctioned from the bag to constitute a disclosure of vacuum-packing. This finding is clearly erroneous and should be withdrawn.

An explicit disclosure that air may be suctioned from the bag is not an implicit disclosure that the diaper is sealed in the encasement within an airtight interior space having a partial vacuum at the time of sealing such that a pressure differential acts upon the bag to maintain the compressed state of the diaper within the bag.

For example, such removal of excess air by suctioning in order to reduce unnecessary volume of the bag may be desirable in *Narawa* in order to avoid pillowing in the packaged diaper.¹¹ Such pillowing otherwise would tend to occur in a preferred embodiment of *Narawa* because *Narawa* discloses that the bag is large enough to receive a fully expanded, soiled diaper for disposal.¹² Simply removing the excess air, however, is not vacuum-packing. Vacuum-packing requires the creation of a partial vacuum within, and sealing of, the bag whereby a pressure differential results that compresses the bag and diaper therein.

¹⁰ See *Narawa*, ¶ 0033 ("I]nstead of applying aforementioned pressure in order to release the air from the individual packaging bag, sealing may be done after suctioning the air from the individual packaging bag by using a suction pump, etc.") (emphasis added).

¹¹ Such removal of excess air is performed, for example, in commercial packaging of cheese using horizontal form, fill and seal production line apparatus. See, e.g., *Van Erden et al.* USPN 4663915, Fig. 7 and col. 7, lines 35-41 ("If desired, in order to assure reasonably snugged engagement of the wrapper with the product articles 18, means may be provided...comprising a suctioning device such as a vacuum-pump or blower 51 and communicating with the interior of the package assembly as by means of a duct 52."). Even though excess air is removed via suction, the cheese in *Van Erden* is not vacuum-packed.

¹² See, e.g., *Narawa*, ¶ 0017 ("[T]he length of aforementioned packaging material 30 L1 is twice as long as the length of folded disposable diaper 2 L2 (vertical length). The used diaper can be returned to the package and wrapped for disposal."); see also ¶ 0021.

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As evidence that *Narawa* fails to disclose a vacuum-sealed diaper, Applicant submitted a declaration of Richard Anderson, who holds both a bachelors degree and a masters degree in packaging engineering from Michigan State, and who has over thirty-five years experience in the packaging industry.¹³ Mr. Anderson's declaration is evidence of what *Narawa* discloses to one having ordinary skill in the art, and it is clear from ¶¶ 18-22 of Mr. Anderson's declaration that *Narawa* neither discloses nor suggests a vacuum-sealed diaper.

In asserting that *Narawa* discloses a vacuum-packed diaper, the Final Office Action finds that Mr. Anderson's declaration is ineffective in view of three patent references that supposedly contradict Mr. Anderson's declaration, namely, *Schneider* US 2003/0223652 ("*Schneider*"); *Plumley* USPN 5891125 ("*Plumley*"); and *Chan* RE 35,276 ("*Chan*"). In particular, the Final Office Action discredits Mr. Anderson's statements that *Narawa*'s preferred use of polyethylene film reveals that *Narawa* neither discloses nor suggests vacuum-packing of a diaper because polyethylene leaks air and, consequently, would not be used in vacuum-packing a diaper.

Reliance by the Final Office Action on these patent references in finding Mr. Anderson's declaration ineffective also is clearly erroneous and should be withdrawn because the cited references actually support Mr. Anderson's declaration.

In this regard, *Schneider* discloses that "[t]he preferred gas-permeable thermoplastics are polyethylene and polypropylene,"¹⁴ and *Plumley* discloses that, "[p]referably, the backsheet is a polyethylene film," and that "the backsheet can permit vapors to escape from the absorbent structure (i.e., be breathable) while still preventing exudates from passing through the backsheet."¹⁵ Similarly, while *Chan* discloses "a thin diaphragm layer 55, e.g. of polypropylene, which is air-

¹³ See "37 CFR §1.132 Declaration," submitted on June 28, 2005, ¶¶ 18-22. This declaration of Mr. Anderson can be found, in part, e.g., in PAIR having a "Mail Room Date" of "06-28-2005," a title of "Affidavits (Rule 131 or 132) or Exhibit(s) Received as part of the affidavit," and a 3 "Page Count." According to Mr. Anderson at ¶ 19, "the *Narawa* reference fails to disclose or teach that the packaging material should be air-tight, which is necessary in order to maintain a pressure differential between an interior and an exterior of a packaging bag. For example, *Narawa* discloses in ¶ 0014 that a preferred packaging material is polyethylene, and *Narawa* discloses in ¶ 0035 that polyethylene is the packaging material used in the reported experiments. Polyethylene cannot be used in maintaining a pressure differential because air leaks through the polyethylene film. Consequently, *Narawa* neither discloses nor suggests vacuum-packing or vacuum-sealing of a diaper."

¹⁴ *Schneider*, ¶ 0008.

¹⁵ *Plumley*, col. 6, lines 36-47. Applicant acknowledges that *Plumley* states "[t]he gas bubble is contained in an essentially gas impermeable material like polyethylene, polypropylene, polyethylen terephthalat, aluminium or mixtures or laminates of these materials," col. 2, lines 24-27; however, the operative words of this disclosure with respect to polyethylene are "or laminates of these materials." See, e.g., the reference to *Hanselmann*, *infra* FN 17 and corresponding discussion.

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impermeable," Chan later indicates polypropylene is not completely air impermeable and that polypropylene actually fails to maintain a vacuum over time.¹⁶

Most telling, however, is Hanselmann USPN 2764859, which issued in 1956 and which is cited and relied upon by the Examiner in related application serial no. 10/906,828, and which specifically relates to vacuum-packing of cold weather clothes and sleeping bags for transport on military planes. *Hanselmann* explicitly discloses that "[p]olyethylene however does not form as good a barrier against gases and moisture as the vinyl plastic film and therefore when polyethylene is used it has been found advisable to use a composite film consisting of an inner layer of polyethylene, a layer of metal foil and an outer layer of scrim or other protective fabric."¹⁷

From these references, it is clearly evident that polyethylene alone would not be used in vacuum-packing a diaper and, consequently, *Narawa's* use of polyethylene film shows that *Narawa* neither discloses nor suggests vacuum-packing of a diaper. Moreover, reliance on these references in finding Mr. Anderson's declaration ineffective is clear error, and Mr. Anderson's declaration should be accorded substantial evidentiary weight in the absence of any factual evidence to the contrary.

III. No *Prima Facie* Rejection is Established

The Final Office Action rejects each of claims 42, 50, 73, and 77 under §102(b) based on the premise that *Narawa* discloses a vacuum-packed diaper. Similarly, the Final Office Action rejects claims 44, 47, 51, 67, 70, 74, and 78 under §103 based, in part, on the premise that *Narawa* discloses a vacuum-packed diaper. Because *Narawa* discloses neither a vacuum-packed diaper nor a vacuum-sealed diaper, no *prima facie* rejection of any of these claims is established.

IV. Conclusion and Requested Action

As no *prima facie* rejection is established for any independent claim, Applicant respectfully requests that the rejections be withdrawn and that the application be allowed on the existing claims.

Respectfully submitted,
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¹⁶ Chan at col 14, lines 1-8 ("Throughout the specification, reference has been made to the air-impermeability of certain materials of construction which are utilized in the present invention. It should be noted that this terminology does not require perfect air-impermeability, however, it does require a degree of air-impermeability sufficient to prevent any significant loss of vacuum pressure through the material over the expected storage life of the vacuum packed materials, e.g. six months."). This disclosure of Chan suggests that use of polypropylene for vacuum-packing diapers, which require shelf lives greater than six months, would be unsuitable.

¹⁷ Hanselmann, col. 2, lines 35-48.